

ARTICLE I. IN GENERAL**Sec. 17-1. Definitions.**

For the purpose of this article, the following words and phrases shall have the meanings respectively ascribed to them by this section:

Approved method of disposal of sewage: Such term shall mean:

- (1) Water-carriage disposal to an approved public or private sewer.
- (2) Water-carriage disposal to an approved septic tank system or other approved individual system.
- (3) Non-water-carriage disposal of human excrement only to an approved sanitary pit privy.

Health department: The county health officer or his duly authorized representative, the sanitarian.

Health director: The county health officer or his duly authorized agent, the sanitation officer.

Individual lot (property or parcel): A single existing parcel on which the owner desires to construct a private family residence or business establishment.

Individual sewage disposal system: A complete system for the collection, treatment and/or disposal of sewage as located on private property.

Inspection: Surveillance procedure as used by the health department to determine compliance with provisions of this chapter.

Installed, repaired, approved and standard: Such terms shall be construed to mean "in accordance with the specifications and standards as established within this chapter."

Lot certification: Procedure whereby a suitable subsurface disposal area is recorded on the plat.

Percolation test: The determination of the suitability of an area for subsoil effluent disposal by testing for the rate at which the undisturbed soil in an excavated pit of standard size will absorb water per unit of surface area.

Sanitary pit privy: An earth pit for receiving non-water-carried human wastes over which is placed a privy house containing seats.

Septic tank: A single-story settling tank in which part of the heavy solids is settled and the organic solids decompose by aerobic bacterial action.

Sewage: Human excrement and the liquid or water-carried wastes as derived from dwellings, business buildings, institutions or other structures used for human habitation, exclusive of wastes derived from industrial processes.

Sewage disposal area: That area set aside on a lot for the purpose of constructing the on-site sewage disposal system associated with effluent disposal trenches. The area includes sufficient area for the primary as well as reserve fields. The disposal area includes the trench area as well as undisturbed inter-trench area.

Sewage handling and disposal regulations: Refers to the current Commonwealth of Virginia's Sewage Handling and Disposal Regulations.

Sewage treatment system: The process of biological or chemical reduction of waste and pathogenic bacteria and subsequent discharge of the end product to a receiving stream.

Sewage trench area: The trench area within the sewage disposal area which is designed and constructed to receive effluent from the distribution box or accessories, exclusive of the inter-trench area and accessories.

Soil analysis: A systematic approach to evaluation of soil by a qualified professional technician.

Subdivision: Any division of a parcel into four (4) or more lots for the intended purpose of creating building sites.

Subsurface disposal field: The process of sewage disposal in which the sewage effluent is applied to land by distribution beneath the surface through open jointed pipes or tiles laid in trenches.

Temporary privy: A privy with a vault or tank used for the collection of human excrement and used for specified periods and cleaned weekly or more often as required.

(Ord. No. 88-4, 8-2-88)

Sec. 17-2. Approved method of disposal of sewage required for all houses, public buildings, etc.

It shall be unlawful for any person to use or occupy, rent or lease for use or occupancy or allow to be used or occupied, any house, warehouse, public or private building or other structure used for human habitation or where human beings congregate or are employed unless or until such house, building or structure is supplied or equipped with an approved method of disposal of sewage. The approved method of disposal of sewage shall be approved by the county health department and the construction shall comply with the requirements of this chapter.

Sec. 17-3. Inspection and authorization to inspect premises.

The county health department is hereby authorized to inspect the entire systems of sewage disposal or treatment maintained in all premises in the county, including any building or structure thereof, for the purpose of ascertaining whether or not such systems are operating satisfactorily. It shall be unlawful for any person to refuse to allow the health department to enter the premises of any building or structure thereof where any system of sewage disposal or treatment is maintained or should be provided, as required by this chapter.

Sec. 17-4. Negligent use of sewer system.

It shall be unlawful for any owner or any tenant or lessee of any premises properly supplied with a sanitary privy or flush toilet or other approved device for the disposal of human excrement or other sewage waste to misuse or neglect the same, so as to allow it or cause it to cease to be sanitary or approved.

Sec. 17-5. Installation, replacement or repair of individual sewage disposal systems within three hundred feet of sanitary sewer.

The owner of any building or structure for which sewage disposal is required shall be required to connect such building or structure to approved public or private sewer, provided that said building or structure is within three hundred (300) feet of approved public or private sewer, and provided further

that the owner of any such private system permits such connections and the public or private sewage system has the necessary capacity to permit the connections. In addition, if any privy system or individual sewage disposal or individual treatment system is found by the county health department to have become unsanitary or malfunctioning, it shall be unlawful for any person to replace, repair or clean any such system or any part thereof in any manner to improve its operating conditions if a public or private sewer is within three hundred (300) feet of any building or structure which such privy or individual sewage disposal or individual treatment system served; provided, that it shall not be unlawful to make emergency repairs or clean out so as to permit use of the facilities pending connection to the public or private sewer, provided such connection is made in the most expedient manner and provided the health department is notified of such connection or temporary repairs; and provided further that individual sewage disposal systems that serve property adjacent to a force main sewer line can be replaced, repaired or cleaned, notwithstanding the provisions hereof, subject to county health department approval. It is further provided that the owner of any building or structure for which sewage disposal is required and which is connected to an approved public or private sewer shall not disconnect the building or structure from such public or private sewer. If the public or private sewer system provider does not have the necessary capacity to permit the connection to the sewer system, the landowner may install an individual septic system upon the grant of a special exception pursuant to section 3-330 of the county zoning ordinance and any other approval required under this Code or the zoning ordinance.

(Ord. No. 03-7, 10-20-03)

Sec. 17-6. License and bond requirements of persons installing or repairing individual sewage disposal or treatment systems.

(a) *License required.* It shall be unlawful for any person contracting to install or repair for another person contracting to install or repair for another person installing or repairing more than three (3) individual sewage disposal or treatment systems within one (1) year or twelve (12) consecutive months to install or repair such systems or any part thereof without first applying for and obtaining an annual license from the health department and meeting the requirements as set forth by this section.

(b) *License and examination.* The annual license shall be issued by the health department upon application and payment of a license fee and satisfactory evidence that the applicant has a working knowledge of sewage disposal systems, installation, construction and the provisions of this chapter as shall be determined by passage of a standard written examination as administered by the health department and provided bonding requirements have been met. Licenses shall be renewed annually between January first and January fifteenth of each year and shall not be proratable. Renewal of license shall be the responsibility of the license holder and shall not be subject to further written examination.

(c) *Bonding.* All persons contracting to install or repair for another or installing or repairing for another an individual sewage disposal system or any person installing or repairing more than three (3) individual sewage disposal systems within one (1) year must furnish bond payable to the county in the penalty of one thousand dollars (\$1,000.00), with surety approved by the treasurer of the county and conditioned to indemnify and save harmless the county, as well as any other person, from all expenses and damages that may be caused by any neglect, defective or inadequate work done by such person. When such work shall be deemed defective or inadequate work to the satisfaction of the health department, within ten (10) days, after written notice from the health department to correct said defect or inadequate work, the bond shall be forfeited and the principal and surety on the bond shall be and become liable therefor and shall pay so much on account of the bond as may be necessary to perfect such work, and in addition thereto shall pay any and all damages which may be occasioned to any person by reason of such defective or inadequate work. The bond shall be deposited with the treasurer of the county. The bond shall be for a period of not less than six (6) months after the expiration of the

license year during which the bond was posted and shall be renewed annually so that the bond shall not be terminated for a period less than six (6) months after the construction or repairs of the last individual sewage disposal system or any part thereof.

Sec. 17-7. Septic tank cleaners.

(a) *License requirements.*

(1) No person shall engage in the business of cleaning septic tanks, settling tanks or vaults designed to hold or retain solids in connection with sewage systems by whatever name described unless and until such person shall have applied for and obtained a license for the health department.

(2) License shall be renewed annually between January first and January fifteenth of each year. License fees shall be established in accordance with section 17-8 and shall not be portable.

(b) *Conditions of issuance of license.*

(1) The tank into which the septic tank sludge is pumped or delivered and carried shall be fully enclosed and watertight.

(2) All inlets and outlets to such tank shall be fully enclosed and provided with watertight valves.

(3) Suction and discharge hose shall be watertight and provision shall be made for carrying such hose in a manner that will prevent any leakage therefrom.

(4) All exposed surfaces shall be painted and maintained in a sanitary condition by frequent washings.

(5) The name and address of the person owning or operating such equipment shall be painted thereon in letters at least four (4) inches high.

(c) *Disposal of sludge or waste from retention tanks.*

(1) It shall be unlawful to dispose of the sludge and other material from septic tanks except by depositing it under the surface of the ground, or in such other approved manner that it will not be exposed to the atmosphere or endanger the source of domestic water supplies, or by depositing it into a public sewer system or sewage treatment plant at such designated locations and under such conditions as may be promulgated by the owners or operators thereof. In any event the sludge or other material shall be carefully deposited and the surface of the ground, manholes, tanks, etc., into which the deposit is made shall be maintained in a sanitary condition. Any covering of such surfaces with sludge or other material shall be promptly and completely removed.

(2) However, properly digested sludge may be disposed of on open farmland with a written permit from the health department, and provided such disposal is at least four hundred (400) feet from any adjoining property and six hundred (600) feet from any structure used for human habitation and provided the area is fenced to preclude entrance of farm or other domestic livestock, and provided steps are taken to prevent surface runoff.

Sec. 17-8. Permit and license fees generally.

The board of supervisors may establish and from time to time amend a schedule of fees for the issuance of permits required under this chapter, and no such permit for which a fee has been established shall be issued until such fee has been paid to the treasurer of the county or another office

designated to collect the fees for the treasurer.

Sec. 17-9. Individual sewage disposal or treatment system--Permit required.

(a) *Generally.* It shall be unlawful for any person to install, construct, alter, repair or extend, or to allow to be installed, constructed, altered, repaired or extended any individual sewage system or treatment system in the county without first making application to and obtaining a valid permit in the name of a specific person for a specific location from the health department for such installation, construction, alteration, repair or extension. Fees for permits shall be established in accordance with section 17-8.

(b) *Application.* Application shall be made on such form as furnished by the health department and shall contain clearly a description, location and dimensions of the land or lot on which the sewage disposal system or treatment system is to be installed. The application shall contain the signature of the owner and shall serve to represent his intent as to the proposal. Any changes in the proposal require written approval of the health department. The health director shall require such test, plans or specifications as he deems necessary to determine the adequacy and desirability of the system. Such information will be made a part of the permit.

(c) *Approval and denial.*

(1) It shall be unlawful for a person to obtain a building permit in the county until such time as he has a permit from the health department where such permit is required. In those instances where the applicant shall connect to an existing public or private system, he shall obtain from the owner a letter of intent which shows safe, adequate sewerage is or can be made available. When the health director is satisfied that a proposed design is adequate for the conditions under which a system is to be installed and used, a written permit to proceed with construction shall be issued by him for such construction.

(2) When the health director determines that proposed design inadequate, or soil or geological conditions are such to preclude safe and proper operation of the desired installation, he shall deny, in writing, a permit and specify the reason for denial.

(d) *Changes in conditions.* Any changes in conditions under which a permit was issued shall void such permit, and it shall be unlawful to proceed with construction until such time as written approval for the changes have been obtained from the health department.

(e) *Voidance.*

(1) Permits shall be null and void after twelve (12) months from date of issuance, unless extended, in writing, by the health director.

(2) Permits shall be automatically canceled when site conditions are changed from those shown on the permit.

(3) Permits shall be automatically canceled should facts later become known that a potential health hazard would be created by continuing installation.

(f) *Alterations to structures.* It shall be unlawful for any person to increase or contract to increase, to change, alter, renovate or remodel any structure which is served by an individual sewage disposal or treatment system unless and until such is done in accordance with a valid health permit or under written approval from the health department stating such will not cause an increased loading on the sewage system so as to provide for safe and adequate sewage disposal or treatment.

Sec. 17-10. Same--Responsibility of owner; guarantee of system.

The issuance of a permit by the health department for an individual sewage disposal system or treatment system shall be the only approval recognized for installation of said system and shall not be binding upon the health department if site or other conditions have altered or changed, or if conditions should later develop that a potential health hazard would be created by installation of such system. The issuance of a permit, subsequent installation and acceptance of the system by the health department shall not denote or imply any guarantee of such system; and it shall be the responsibility of the owner or any subsequent owner of the system to maintain, repair or replace any system which has ceased to function in a sanitary manner.

Sec. 17-11. Construction of subsurface disposal systems.

(a) *Generally:* All individual sewage disposal systems installed or repaired shall consist of the following:

- (1) Building sewer.
- (2) Septic tank.
- (3) Distribution box.
- (4) Distribution laterals.
- (5) Subsurface disposal field (drainfield).

(b) *Approved building sewers:*

- (1) *Construction.* The sewer line shall be four (4) inches or greater in diameter, must have tight joints so there will be no leakage and shall be constructed of cast iron vitrified clay, concrete, cement, bituminous fiber or other material of equal quality. Where two (2) different types of sewer pipe are connected, a proper conversion adapter shall be used.
- (2) *Location.* The sewer line shall not be located within twenty (20) feet of a private water supply and where located within thirty-five (35) feet of a private water supply, the line shall be constructed of cast iron with leaded joints.
- (3) *Grade.* The grade for a four-inch sewer shall not be less than twelve and one-half (12 1/2) inches per one hundred (100) feet or one and one fourth (1 1/4) inches per ten (10) feet in length. The grade for a six-inch sewer shall be seven and one-half (7 1/2) inches per one hundred (100) feet or three-fourths (3/4) inch for each ten (10) feet of length.
- (4) *Clean outs.* Clean outs shall be installed where turns of forty-five (45) degrees or greater are necessary and where straight runs are in excess of ninety (90) feet. Bends in excess of forty-five (45) degrees shall require the installation of a manhole.

(c) *Septic tanks:*

- (1) *Design.* Septic tanks shall be of an approved design as to length, width and depth or other pertinent dimensions so as to effectuate extended use. The minimum size shall be based on a retention period of not less than forty-eight (48) hours. Any septic tank receiving waste from a garbage disposal unit shall be increased in capacity by at least fifty (50) per cent.
 - a. *Dwellings.* Liquid capacity for all septic tanks for dwellings shall be based on the number of bedrooms or potential bedrooms in the building to be served at an anticipated rate of two (2) people per bedroom.
 - b. *Business and commercial establishments.* Liquid capacity of septic tanks shall be based on the state department of health "Minimum Daily Water Consumption Rates," set forth as follows:

MINIMUM DAILY WATER CONSUMPTION RATES

Dwelling, per person (minimum rates by fixture below)

TABLE INSET:

Kitchen sink.....	1575
Toilet.....	20	
Shower or tub.....	20	
Wash basin.....	5	
Laundry.....	15	
High schools with showers, per person.....	16	
Elementary schools without showers, per person.....	10	
Motels at sixty-five (65) gals./person, minimum per room.....	130	
Trailer courts at three (3) persons/trailer, per trailer.....	300	
Restaurants per seat which includes toilet wastes, but not air-conditioning cooling water.....	50	
Interstate or through highway restaurant, per seat (BOD mg/1500).....	100--180	
Interstate rest areas, per person.....	5	
Service station per vehicle serviced.....	10	
Factories per person per eight-hour shift exclusive of industrial wastes.....	15--35	
Shopping centers per one thousand (1,000) sq. ft. of ultimate floor space.....	200--300	
Hospital (water design).....	300 g/bed/day	
Hospital (sewage design).....	300 g/bed/day	
Nursing homes per bed capacity.....	200	
Nursing homes (homes for aged) where patient is ambulatory.....	100/bed	
Doctor's office in medical center.....	500	
Laundromats, nine (9) to twelve (12) lb. machines, per machine (BOD mg/1500).....	500	
Community college (per student and faculty).....	15	
Swimming pools, per swimmer.....	10	
Theaters, drive-in type, per car.....	5	
Theaters, auditorium type, per seat.....	5	
Picnic areas, per person.....	5	
Camps, resort, day and night (with limited plumbing), per camp site (privies).....	50	
Luxury camps (with flush toilets), per camp site.....	100	

(2) Construction. The hole to receive a septic tank shall be large enough to permit the proper placement of the tank and backfill. Where rock or other undesirable obstructions are encountered, the bottom of the hole must be excavated an additional six (6) inches and backfilled with sand, crushed stone or gravel to the proper grade. Construction of the tank shall be such as to assure its being watertight and prevent the entrance of rain water or surface drainage. Adequate access to each compartment, for inspection and sludge removal, shall be provided by manholes or removable covers built up to within eighteen (18) inches of the finished ground surface. Manholes shall be provided at both inlet and outlet ends of the septic tank. A permanent marker to indicate the location of the septic tank shall be installed at or above finished grade.

a. Ready-made concrete septic tanks: Precast concrete septic tanks may be used if they comply with design and capacity requirements. The side walls and bottom of such tanks shall be at least two and one-half (2 1/2) inches in thickness. The top shall have a minimum thickness of three and one-half (3 1/2) inches. Such tanks shall have reinforcing of at least six (6) inches by six (6) inches mesh, No. 12, welded wire fabric. Minimum compression strength of concrete shall be three thousand (3,000) pounds per square inch. Aggregate used in the concrete shall not be larger than No. 9 stone (Virginia Highway designation three-fourths-inch size). Concrete shall be vibrated or well rodded to minimize honeycombing and to assure reasonable tightness.

b. Poured-in-place septic tanks: For poured-in-place septic tanks up to four (4) feet in width, the reinforcing for the cover slab shall consist of welded wire mesh reinforcing with four (4) inches by four (4) inches spacing made of No. 4 gauge wire. For tanks wider than four (4) feet, the cover slab shall be reinforced with one-half-inch rods spaced six (6) inches center to center both ways. Single piece poured-in-place tanks shall have a bottom at least six (6) inches in thickness. The walls of all poured-in-place tanks up to and including one thousand (1,000) gallons capacity shall be at least six (6) inches in thickness and tops of such tanks shall be at least four (4) inches in thickness. Poured tanks with capacities greater than one thousand (1,000) gallons but less than one thousand five hundred (1,500) gallons in capacity shall have walls at least seven (7) inches in thickness. Poured tanks with capacities one thousand five hundred (1,500) gallons or greater shall have walls at least eight (8) inches in thickness. All poured tanks with capacities in excess of one thousand (1,000) gallons shall have tops at least five (5) inches in thickness.

c. Metal septic tanks: Single compartment residential bituminous coated metal septic tanks may be approved provided they meet the standard design and comply with United States Department of Commerce Commercial Standard 177-51.

(3) Manufacturing. It shall be unlawful for any person to manufacture or cause to be manufactured within the county any structure to be used as a septic tank until and unless application shall be made to the health department and a permit obtained for such manufacturing and permits shall be renewed on an annual basis between January 1 and January 15. The fee for permits shall be set forth in section 17-8. Inspections shall routinely be made by the health department to determine compliance with materials and products as manufactured and each manufacturer shall clearly mark or emboss the top of each tank with the manufacturer's name, the dimensions of the product and the capacity. In such cases where the manufacturer of tanks is not located within the county, it shall be necessary for the manufacturer to obtain a certificate from the local health department having jurisdiction as to the construction of the tanks and shall clearly mark or emboss the top of each tank with the manufacturer's name, the dimensions of the product and the capacity.

(d) *Inlet and outlet fittings:*

(1) The inlet invert shall be one (1) inch or more above the outlet invert in any septic tank. Inlet and outlet fittings shall be of cast iron or other material of equal quality or in ready-made tanks may be cast with the tank and shall be at least two and one-half (2 1/2) inches thick. Cast iron joints shall be either leaded or welded. The following shall be required for fittings in any septic tank: Diameter (inside) shall be four (4) inches or greater. The inlet tee should extend six (6) inches to eight (8) inches below flow line. The outlet tee should extend into about thirty-five (35) per cent of the liquid depth.

(2) The inlet and outlet tee shall be so installed as to be located directly beneath the manhole access. Satisfactory venting of the tank shall be provided through the inlet and main building stack. The outlet shall be similarly vented to provide proper ventilation of the disposal field back into the septic tank and thence through the main building stack.

(3) The inlet and outlet fittings shall be placed at opposite ends of the tank so as to prevent short circuiting and shall be so installed as to provide maximum retention capacity and air space as required. For rectangular tanks, the length shall be twice the width and the inlet and outlet tee shall be installed to provide the following dimensions:

RECTANGULAR TANK DIMENSIONS

Table I

TABLE INSET:

Liquid Capacity in Gallons	A Length	B Width	C Airspace	D Liquid Depth
720	7'0"	3'6"	1'0"	4'0"
1000	8'0"	4'0"	1'0"	4'0"
1250	9'0"	4'6"	1'0"	4'3"
1480	9'6"	4'8"	1'3"	4'6"
1720	10'0"	5'0"	1'3"	4'8"

(e) *Effluent line.* The line from the septic tank to the distribution box shall be watertight and shall have a fall of not less than one-half inch in twelve (12) feet. Pipe laid under driveways, paved areas or other areas subject to heavy loads, shall be constructed of bell and spigot cast iron pipe with lead joints. No effluent line shall be installed within twenty (20) feet of a water supply source and such shall not be permitted within thirty-five (35) feet unless the line is constructed of cast iron with leaded joints.

(f) *Distribution box.* The distribution box may be constructed of either concrete, brick, or masonry block, with one (1) inlet pipe and as many outlet pipes as required. The outlet pipe should be four (4) inches or more above the bottom of the box. The inlet pipe shall be placed at least one (1) inch higher than the outlet pipe. Where excessive velocities are anticipated, the flow shall be reduced by the use of a baffle, tee or ell. The distribution box must be installed on a solid foundation, either natural or artificial. When equal distribution of effluent is desirable to all outlets, it shall be determined by water testing.

(g) *Subsurface disposal field (drainfield).*

(1) *Generally:* The open joint subsurface drainfield shall consist of a series of shallow lateral trenches eighteen (18) to thirty-six (36) inches in width and excavated to a depth offering the highest potential absorptive conditions but not to exceed seventy-two (72) inches.

(2) *Materials and construction:*

- a. Concrete tile shall be Extra-Quality and meet current ASTM standards for nonreinforcement concrete. The tile shall be four (4) inches in size and shall not exceed one (1) foot in length.
- b. Clay tile shall be Extra-Quality and meet current ASTM standards for clay tile. The tile shall be four (4) inches in size and shall not exceed one (1) foot in length.
- c. Perforated corrugated plastic drainage tubing shall meet current ASTM standards and comply with all applicable sections of Commercial Standard 228-61. At not greater than ten-foot intervals, the pipe shall be plainly marked, embossed or engraved thereby showing the manufacturer's name or hallmark and that the product meets a bearing load of one thousand (1,000) pounds per foot. In addition, a painted or other clearly marked line or spot shall be marked at not greater than ten-foot intervals to denote the top of the pipe. The tubing shall have three (3) holes three-fourths inch in diameter evenly spaced and placed within one hundred thirty (130) degrees, the center hole being directly opposite the top marking. Spacing of each set of three (3) holes shall be at four-inch intervals along the tube. If there is any break in the continuity of the tubing, an appropriate connection shall be used to join the tubing.
- d. Bituminous fiber drainage pipe shall meet current ASTM standards for bituminous fiber drainage pipe. At not greater than ten-foot intervals, the pipe shall be plainly marked, embossed or engraved, thereby showing the manufacturer's name or hallmark and that the product meets a bearing load of one thousand (1,000) pounds per foot. In addition, a painted or other clearly marked line or spot shall be marked at not greater than ten-foot intervals to denote the top of the pipe. Spacing and location of drainage holes shall be the same as for perforated corrugated plastic drainage tubing.

(h) *Special provisions:*

(1) *Dosing systems:*

- a. The capacity of dosing tanks for subsurface percolation fields shall be directly proportional to the total holding capacity of the tile drainage lines. In order to apply sufficient sewage effluent to obtain good distribution throughout the tile lines of the entire field and at the same time not flood the field, a dosing tank capacity equal to six-tenths of the total holding capacity of the tile drainage lines shall be used on a four-inch line; thus the capacity in gallons shall be equivalent to four-tenths of the linear footage of the four-inch line.
- b. A single siphon together with a weir diversion box and two (2) distribution boxes, or twin alternating siphons and two (2) distribution boxes, may be required for dosing two (2) separate fields having a total length of drainage tile up to two thousand four hundred (2,400) linear feet. All installations having more than two thousand four hundred (2,400) linear feet of drainage tile shall have twin alternating siphons, two (2) weir diversion boxes, four (4) distribution boxes and four (4) separate tile drainage fields.
- c. The maximum total length of tile in the four (4) tile fields must not exceed four thousand eight hundred (4,800) linear feet. Any installation that will require more than four thousand eight hundred (4,800) linear feet of tile drainage will be considered a special case and the owner's engineer will submit detailed plans and specifications to the health department for approval. Also, the owner or his engineer will submit in writing, a proper justification for the larger installations and a satisfactory explanation as to why some other method of secondary treatment would not be more feasible or practical for any installation requiring a total length

of tile drainage lines in excess of four thousand eight hundred (4,800) linear feet.

(2) *Effluent pumps:*

a. Where lots are created requiring sewage effluent pump as a component of the conveyance system for the primary disposal field or its repair it will be necessary to provide notice of the requirement on the final (record) plat and on the approved lot certification plat on the face of the plat and the border notes. The words "effluent pump required" shall be printed in bold letters and reference made to the lot numbers.

b. At the time the applicant files for a sewage disposal system construction permit subsequent to a lot certification, the following materials shall be submitted for review in addition to the regular submission requirements:

1. A plat prepared by an individual licensed to do such work at a scale of fifty (50) feet to the inch (one hundred (100) feet to the inch for lots greater than two (2) acres) showing the following:

a) The location, layout, and area of the proposed structure and the setbacks to all property lines.

b) Location of the drainfield per the approved lot certification plat.

c) Proposed locations and elevations of the sewer lines, septic tank, pump chamber, and distribution box.

d) Location of any water lines and/or wells and the materials constructed thereof.

e) Location of any easements affecting the property.

2. A site grading plan to the same scale.

3. Plans and specifications for the effluent pump system. The system design shall consist of two (2) alternating pumps with emergency alarm and override switch. The alarm system and override shall be on a separate electrical circuit from the pumping system circuit. The pump system shall be designed with sufficient storage capacity to contain a volume equal to the number of bedrooms times a daily usage of one hundred fifty (150) gallons per day per bedroom for a period of two (2) days.

4. Additional materials as may be required by the review agency to insure the adequacy of the system.

c. House locations, drainfield areas, and components of the distribution system shall be staked on the site for necessary inspections to assure compliance with the approved plans.

d. Any changes from the condition of approval shall nullify the approval and shall require the resubmission and reapproval of construction permit and accompanying plans and specifications.

e. Type II effluent pump distribution systems as defined in 12.04.01 of the sewage handling and disposal regulations shall be permitted.

(Ord. No. 88-4, 8-2-88; Ord. No. 91-2, 2-19-91)

Sec. 17-12. Method of determining suitability for subsurface disposal systems.

(a) It shall be unlawful for any person to start any new subdivision or housing development or dwelling for which individual sewage disposal systems are required before furnishing plans and specifications of the sewer system or sewage disposal system to be used, together with plans for the anticipated water system to be used in the structure or structures. These plans and specifications must be approved before construction is started.

(b) In the case of a new subdivision, before a final plat is approved, a written statement from the county health department shall accompany each final plat submitted for approval stating that plans and specifications of the sewer system or sewage disposal systems together with plans for the anticipated water system, and are considered to meet the requirements of this section and intent of this chapter. For the purpose of this chapter, evaluation of proposed subdivision or proposed individual lots or parcels shall be based on the following:

(1) *Individual lots.*

- a. Recommendations of the county health department as based on experienced data and as supported by field investigations and soil evaluation.
- b. Information submitted on behalf of an applicant by qualified professional consultants in the field of disposal or treatment of human waste or related subjects. It shall be the responsibility of the health department to evaluate such information as submitted prior to approval.
- c. Results of actual percolation tests as conducted on the property in the area of the proposed subsurface disposal field. Such test shall be made under the direct supervision of the health department and in accordance with section 17-14.

(2) *Subdivisions.* The criteria for examination and evaluation shall be the same as required for individual lots and in addition, the following:

- a. The applicant shall submit to the health department a soils boundary map of the proposed development and a written report with all pertinent information as to the soil suitability from a qualified professional consultant. In subdivisions of two (2) or less acres, the soil boundary map shall be prepared based on hundred-foot borings of the tract to be developed. The plat shall locate each boring site and shall indicate the soils series, depth to parent material and other pertinent information. For subdivisions greater than two (2) acres, all soil borings made shall be located on the plat and the plat shall note all pertinent information. All soil maps shall be accompanied by a detailed report of soil conditions and other pertinent information.
- b. An adequate number of percolation tests shall be made, at least three (3) per soil type or if deemed necessary, at least one (1) per lot to show clearly the absorption ability of the tract. Each test shall be located by a key number on a survey topographic map of the property, which shall also designate the soil types and lot layout.
- c. Approval of a preliminary plat or final plat shall be required to denote the following:

In accordance with section 17-12, Fauquier County Code:
Approval of this plat is hereby granted by the Fauquier County Health Department.

(c) Notwithstanding anything contained in this chapter to the contrary new subdivision lots may be approved without the individual sewage system disposal permits required by this chapter upon the following conditions:

- (1) The lot is located in the Rural Agriculture or Rural Conservation Zoning District;

(2) The owner of the lot submits an affidavit stating under oath that the lot is to be used solely for agricultural purposes which do not require a sewage system. For purposes of this section the phrase "agricultural purposes" shall mean:

Activities devoted to the bona fide production of fruits and vegetables of all kinds; meat, dairy and poultry products; nuts, tobacco, nursery and floral products; the pasturage of animals; or the production and harvest of products from silviculture activities.

(3) The lot conforms with all requirements of the Fauquier County subdivision and zoning ordinances;

(4) The final plat of subdivision creating the lot contains boldly printed thereon the following statement:

This lot was created for use for solely agricultural purposes and is not approved for an individual sewage disposal system. This lot may not be used for any purpose other than agricultural purposes as defined in section 17-12 of the Code of Fauquier County until a permit for an individual sewage disposal system is approved by the Fauquier County health department pursuant to the requirements of Chapter 17 of the Fauquier County Code or public sewer is extended and available to the lot.

(Ord. No. 94-1, 5-3-94)

Sec. 17-13. Soil evaluation procedure.

Soil evaluation for a drain field system shall follow a systematic approach including consideration of physiographic province, position of landscape, degree of slope and soil profile (thickness of horizon, color and texture). Such evaluation shall indicate whether or not the soil has problems relative to the position in the landscape, seasonal water table, shallow depths, rate of absorption, or a combination of any of the above, and may be used to determine if proposal for the use of a subsurface tile field will be satisfactory; but approval shall not necessarily be restricted to this method of evaluation. If absorption rate problems are suspected and there is no indication of a water table, percolation tests may be required, but their result shall not be presumptive, prima facie or conclusive evidence as to the suitability for effluent absorption.

Sec. 17-14. Percolation test procedure.

All percolation tests required shall be performed in accordance with the following and under the direct supervision of the health department:

(a) *Preparation:*

(1) Dig or bore test holes with horizontal dimensions of four (4) to twelve (12) inches and vertical sides to the bottom of the proposed absorption trench. The last eighteen (18) through twenty-four (24) inches should be uniform in size. Mound dirt around the rim of the test hole to prevent entrance of surface water.

(2) Roughen or scratch the bottom and sides of the holes to provide a natural surface. Remove all loose materials from the test holes. Place at least two (2) inches of fine sand or small gravel in the hole to prevent the bottom from scouring.

(3) There shall be at least three (3) test holes in the proposed drainfield area and the location shall form a triangle representative of the area for which the

installation is proposed. Records shall be maintained as to the depth, type of soil encountered, etc., on a form to be provided by the health department.

(b) *Presaturation:*

- (1) At a beginning time, fill the test hole with clear water to a minimum depth of twelve (12) inches over the gravel.
- (2) The test hole shall be checked each half hour and refilled if necessary to maintain the twelve-inch minimum level.
- (3) Water shall be maintained in the test hole for at least four (4) hours. Following this, cover the holes and leave overnight.

(c) *Rate measurement:* Percolation rate measurements shall be made on the day following presaturation:

- (1) Procedure A: If no water remains in the test hole after the twenty-four-hour presaturation, add clear water to a depth of six (6) inches over the gravel and from a fixed reference point, measure the height of the water surface at thirty-minute intervals over a four-hour period, refilling the hole to a depth of six (6) inches as necessary. The drop which occurs during the final thirty-minute period is used to determine the percolation rate.
- (2) Procedure B: If water remains in the test hole after the twenty-four-hour presaturation, add clear water to a depth of six (6) inches over the gravel and from a fixed reference point, measure the height of water surface for thirty (30) minutes. At least an additional two (2) readings shall be taken to determine uniformity and the first thirty-minute reading may be utilized to determine percolation rate.
- (3) Procedure C: In sandy soils or other soils in which the first six (6) inches of water seep away in less than thirty (30) minutes after the twenty-four hour presaturation, the time interval shall be taken as ten (10) minutes and the test run for one (1) hour. The drop that occurs during the final ten (10) minutes shall be used to calculate the percolation rate.

(d) *Interpretations of percolation test.* In addition to the percolation rate, the consistency of the rate shall be taken into consideration. These conditions are to be considered in the issuance or denial of a permit, but such are not to be presumptive, prima facie or conclusive as to suitability. Further information as to interpretations of percolation test or soil evaluation is provided in section 17-15(a)(2).

Sec. 17-15. Design and installation requirements for subsurface disposal fields.

The following shall be the design and installation requirements for subsurface disposal fields:

(a) *Design:*

- (1) The size of the subsurface drainfield shall be based on the square footage of the trench bottoms and shall consist of a minimum of at least three hundred (300) linear feet on a twenty-four-inch trench (six hundred (600) square feet) of subsurface disposal trench bottom. The following criteria shall be used to establish the minimum distance between trenches:
 - a. Eighteen (18) inches trench center to center shall be six (6) feet.
 - b. Twenty-four (24) inches trench center to center shall be six (6) to eight (8) feet.

c. Thirty-six (36) inches trench center to center shall be nine (9) feet.

(2) Interpretation of percolation test results or soil evaluation. The following minimum area requirements shall apply as based on percolation rate measurements:

MINIMUM ABSORPTION AREA REQUIREMENTS

Table II

TABLE INSET:

<i>Percolation rate (Time required for water to fall one inch, in minutes)</i>	<i>Required absorption area per one hundred gallons per day of water used in square feet</i>
1 or less	52
2	63
3	74
4	85
5	93
10	122
15	140
30	184
45	222
60	244

An over-sixty-minute-rate shall require special design as satisfactory to the health department. Where soil evaluation is utilized in lieu of actual percolation tests, the minimum absorption area shall be based upon the sixty-minute-rate or as the experience of the health department with a particular soil type shall dictate.

(b) *Location.* Location and installation of the sewage disposal system and each part thereof shall be such that, with reasonable maintenance, it will function in a sanitary manner and will not create a nuisance nor endanger the safety of any domestic water supply. In determining a suitable location for the system, consideration shall be given to the size and shape of the lot, slope of natural and finished grade, depth of ground water table, proximity to existing or future water supplies, and possible expansion of the system.

MINIMUM DISTANCES

Table III

TABLE INSET:

<i>Wells (Water Sources)</i>		<i>Impounded Waters</i>	<i>Streams</i>	<i>Property Lines</i>	<i>Basements</i>	<i>Top Edge of Banks and Cuts</i>
<i>Subsurface disposal field</i>	100'	100'	50'	10'	20'	20'

Septic tank	50'	100'	50'	10'	20'	10'
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In such installations where Class I or II wells (division of engineering, state health department classifications) are constructed, the one-hundred-foot distance between the well and subsurface disposal field may be reduced provided geological conditions indicate such would be satisfactory.

(c) *Lot size:*

(1) The lot size shall not be governed by a minimum acreage but shall be sufficient to permit proper location, installation and operation of the system and there shall be sufficient area suitable so as to permit repair or extension of said system in accordance with the reasonable anticipated life of the house or until such time as public sewer is to be available. The availability of sewer shall be based upon the working capital improvements program of the county.

(2) The area for installation and the area for repair or extension shall be clearly defined, reserved for said use and located entirely on the parcel or lot which they are to serve. It shall be unlawful to install subsurface disposal systems on adjoining parcels by easements; provided this shall not apply to repair of existing systems where there is a malfunction and such is the only available solution to correction of the problem.

(3) It shall be unlawful to subdivide, redivide or change an approved parcel in any manner which will cause, reduce or alter the ownership of a drainfield area of those areas reserved for repair unless and until such time as public sewer is available or unless written permission is obtained from the health department showing such changes or alteration will have no effect on the existing system and the area available for repair.

(d) *Special provisions:*

(1) *Drainfield sizes:*

a. Where a lot is proposed to be subdivided in a designated service district the minimum available subsurface sewage disposal area shall be ten thousand (10,000) square feet per lot unless reduced or enlarged based on criteria in section 17-15(d)(1)c.2. of this section. Note: (The ten thousand (10,000) square feet design is based on a four-bedroom house at a sixty (60) minute per inch percolation rate and a one hundred (100) percent reserve area.)

b. Where a lot is proposed to be subdivided outside of a designated service district, the minimum available subsurface sewage disposal area shall be fifteen thousand (15,000) square feet per lot, unless reduced or enlarged based on criteria in section 17-15(d)(1)c.2. of this section. Note: (The fifteen thousand (15,000) square feet design is based on a four-bedroom house at a sixty (60) minute per inch percolation rate and a two hundred (200) percent reserve area.)

c. *Reduction of drainfield areas:*

1. The subsurface sewage disposal area shall be reduced in accordance with the following:

a) Within a service district, total trench area, including that set aside for a reserve field, shall be two hundred (200) per cent of the primary trench area as dictated by the sewage handling and disposal regulation, in effect. In no event shall the total trench area be less than two thousand eighty

(2,080) square feet, nor shall the number of bedrooms be less than two (2) except by special exception as may be permitted by the zoning ordinance. (The minimum total trench area, referenced to above, corresponds to that area required by the sewage handling and disposal regulations for a four-bedroom house with a thirty (30) minute per inch percolation rate and a one hundred (100) per cent reserve.)

b) Outside a service district, total trench area, including that set aside for a reserve field, shall be three hundred (300) per cent of the primary trench area as dictated by the sewage handling and disposal regulations, in effect. In no event shall the total trench area be less than three thousand one hundred twenty (3,120) square feet, nor shall the number of bedrooms be less than two (2) except by special exception as may be permitted by the zoning ordinance. (The minimum total trench area, referred to above, corresponds to that area required by the sewage handling and disposal regulations for a four-bedroom house with a thirty (30) minute per inch percolation rate and a two hundred (200) per cent reserve.)

2. Criteria for reduction:

a) All submission requirements for lot certification shall be complied with.

b) Test borings shall be conducted to a depth of eight (8) feet below ground elevation or two (2) feet below proposed trench bottom to determine the minimum depth of bedrock and water table.

c) Percolation tests shall be required and performed in accordance with section 4.05.(b) and Appendix II of the sewage handling and disposal regulations except that a forty-eight-hour presoak may be required.

d) The minimum depth to bedrock from the trench bottom shall be no less than one foot. Greater offsets may be required based on on-site characteristics or requirements of the sewage handling and disposal regulations.

e) The minimum offset or depth to water table shall be no less than eighteen (18) inches from the trench bottom or greater distance as required by the sewage handling and disposal regulations.

f) Additional engineering analysis may be permitted at the applicant's expense if the approving agency and the applicant's consultant fail to agree on the design.

g) In the event that the applicant does not agree with the conclusion or recommendations of the health department as regards approval of a proposed drainfield area, and all attempts to address the differences have failed, the applicant may appeal to the district sanitarian whose decision shall be final.

h) Applicant shall be notified in writing of specific reasons

for denial.

d. Enlargement of drainfield areas. The subsurface sewage disposal area shall be enlarged at the determination of the health department where conditions/soil types indicate the percolation rate exceeds sixty (60) minutes per inch. In no case shall the number of bedrooms be less than two (2) except by special exception as may be permitted by the zoning ordinance.

e. Criteria for enlargement. The criteria for enlargement shall be the same as those in section 17-15(d)(1)c.2.

f. Additional requirements:

1. Minimum subsurface sewage disposal area design for residential development shall be for a two-bedroom dwelling.

2. A limitation of the number of bedrooms shall be noted on the lot certification plat and on the record plat.

3. No subsurface sewage disposal areas shall be designed in soils with a percolation rate in excess of ninety (90) minutes/inch.

4. Additional sewage handling improvements may be required based on the sewage handling and disposal regulations and the Fauquier County Code.

2. The system shall be designed to receive all sewage from the dwelling or as required. Basement floor, footing or roof drainage shall not enter any part of the subsurface disposal system. Such drainage shall be diverted from the area of the subsurface disposal system.

(Ord. No. 88-4, 8-2-88)

Sec. 17-16. Pit privy permits.

It shall be unlawful for any person to erect, install or allow to be erected or installed a pit privy without first fulfilling all applicable variance requirements contained in the building code and making application to and obtaining a permit from the health department and in accordance with the following:

(a) *Private individual residences, business establishments.* Private individual residences or business establishments shall be permitted to construct such facilities provided satisfactory subsurface disposal of all water-carried waste from the household plumbing shall be provided for in accordance with the provisions of this chapter and inasmuch as plumbing fixtures are necessary to good sanitation, it shall not be satisfactory to the intent of this chapter to construct a dwelling or other structure which should have plumbing or household waste fixtures, in total or part, present or future, which cannot and will not be able to provide for such wastes. Such privies shall be constructed in accordance with plans and specifications as will be provided by the health department, and such privies shall be inspected and approved by the health department prior to use.

(b) *Temporary pit privy use.* In lieu of a permanent type of structure and for the purpose of disposal of human excrement for temporary use, the following type of holding privy may be used for a specified period of time at a specific location as prescribed by the health officer:

- (1) *Building, vents, door.* A building, which may be on skids for movability, so

constructed as to be flytight and rodentproof, with vents near the ceiling covered with 16-mesh copper wire screen and with a self-closing, flytight door.

(2) *Seat box, hole and vent.* The seat and seat box shall be so constructed as to be easily cleanable and to cover completely a corrosion-resistant waterproof metal or other approved material tank of sufficient capacity. The tank shall have an opening directly under the seat hole. A metal sleeve shall be provided between the seat and tank. The tank shall be vented through or near the roof with a 16-mesh copper wire screen covering.

(3) *Maintenance.* The tank shall be cleaned out at least once weekly or as often as necessary to prevent the contents from filling the tank above two-thirds its capacity. Cleaning of the tank shall be done by a licensed contractor with approved equipment as required in section 17-7. Chemicals approved by the health department shall be added as often as necessary to liquify wastes and prevent objectionable odors. Daily washing of the toilet seat and inside of building shall be required. Toilet tissue shall be provided at all times. The privy shall be maintained in such a way that it will not endanger the public health or create a nuisance.

Sec. 17-17. Construction of individual sewage disposal or treatment facilities requiring discharge into state waters.

It shall be unlawful for any person or firm to make application to any state agency or enter into the design of any sewage disposal system by whatever name it shall be called that would require point discharge into any stream or drainageway in Fauquier County prior to making a formal request for public hearing to the Fauquier County Board of Supervisors.

This request must be made in writing through the Fauquier County Health Department. This request shall be presented to the Fauquier County Board of Supervisors to be advertised for public hearing at its next regular meeting.

Public notice shall be in accord with section 15.1-431 of the Code of Virginia.

Any person submitting a request for discharge into state waters shall submit written proof of notification of all downstream property owners for a distance of one (1) mile. Notice sent by certified mail to the last-known address of such owner as shown on the current real estate tax books of Fauquier County shall be deemed adequate compliance with this requirement. The provision of notice shall be the responsibility of the owner. No request shall be considered within five (5) days of any such notice.

It shall be noted that this public hearing is for the benefit of the people of Fauquier County, to provide notice only, of a proposed sewage discharge into county waters. Approval or disapproval of the proposal by this board in no way grants final approval of design, construction or discharge to county waters. All such approval shall be under the authorities so designated to perform such duties.

Sec. 17-18. Inspections.

(a) *Required inspections.* The health director or his agent shall make such inspections as he may deem necessary during construction of sewage disposal or treatment systems to determine compliance with the requirements of this chapter.

(b) *Installation or use of sewage disposal or treatment systems.*

(1) *Approval required prior to use.* It shall be unlawful to use, operate or cause to be used or operated or allow to be used or operated any sewage disposal system or treatment system by whatever name or description ascribed thereto until after the health

department has inspected and approved in writing such use.

(2) *Inspection of subsurface disposal system.* No part of any installation of a subsurface disposal or treatment system shall be covered until inspected and approved by the health department. Any part which has been covered prior to inspection shall be uncovered for inspection upon order of the health director. Upon inspection and approval of said system by the health department, the system is to be backfilled within twenty-four (24) hours.

(3) *Waiver of inspection.* In extraordinary circumstances, the health director may give final approval to any system, although incomplete when reasonable professional judgment indicates a revisit is not practical or feasible. The inspection form shall indicate such waiver.

(4) *Waiver of design criteria.* Where strict compliance with any disposal system design criteria contained in this chapter will, in the opinion of the environmental health specialist supervisor, impose an economic hardship a waiver of the design criteria may be granted by the environmental health specialist supervisor, after consultation with the district environmental health manager, the district medical director, the Fauquier County soils scientist and Fauquier County engineer, upon an affirmative written finding that waiver of the design criteria:

- a. Will not result in a degradation of the environment; and
- b. Will not negatively impact the health considerations upon which the design criteria is based; and
- c. Will not be of substantial detriment to properties in the vicinity; and
- d. Is necessary by reason of the exceptional narrowness, shallowness, size, shape or topographic condition of the specific piece of property; and
- e. Will result in the disposal system design being in substantial compliance with the design criteria contained within this chapter.

Upon granting any waiver to the design criteria of this chapter the environmental health specialist supervisor shall refer the waiver to the board of supervisors of Fauquier County at its next regularly scheduled meeting. The board of supervisors, by a majority vote, may consider the waiver of the design criteria at the second regularly scheduled meeting. If the board of supervisors takes no action on the design criteria waiver referral the design criteria waiver shall be deemed approved. If the board of supervisors votes to consider the waiver it may grant, deny or modify the waiver issued by the environmental health specialist supervisor. All applications for a waiver shall be made in writing to the environmental health specialist supervisor. No waiver shall be granted which would result in the disposal system design being in less than substantial conformance with the design criteria contained within this chapter.

(c) *Notice to correct condition.* If upon any inspection the health director or his authorized agent shall find any violation of this chapter or the provisions of the permit issued under it, he shall direct the person to whom the permit was issued by written notice to make the necessary corrections within such reasonable time as shall be specified therein.

(Ord. No. 94-4, 5-3-94)

Sec. 17-19. Violations; penalties.

Any violation of the provisions of this chapter shall be punishable by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for a period of not more than thirty (30) days in jail, or

by both such fine and imprisonment. The provisions of this section shall not apply where a specific penalty is provided for by a section within this chapter.